

Low Voltage Three-Phase Hybrid Inverter



Application Scenarios

Households, Large Villas, Supermarkets, Shopping Malls, Small Farms, Studios, Critical Load Backup, Areas with Unstable Power Grids

Flexible Adaptability

- On-chip intelligent and dynamic load management
- LCD display for real-time monitoring
- UPS-level transfer time, <6s

Safe and Secure

- IP65 protection rating
- Intelligent terminal temperature detection
- AC/DC side equipped with Type II SPDs
- AFCI (optional)

High Performance

- Up to 160% PV overloading capability
- Up to 200% EPS power output for 60 seconds
- Maximum charge/discharge current of 290A

Efficient Management

- Supports parallel connection of up to 10 units
- Multiple control modes to meet diverse needs
- Compatible with diesel generators
- Maximum MPPT current of 30A

Specification

Model	GS-LV-12K-3P	GS-LV-15K-3P
PV Input		
Recommended Max.input power(kW)	19.2	24
Start-up voltage(V)	160	160
Max.DC input voltage*(V)	800	800
Rated DC input voltage(V)	550	550
MPPT voltage range*(V)	200 ~ 700	200 ~ 700
No.of MPP trackers	2	2
No.of DC inputs per MPPT	2 + 2	2 + 2
Max.input current(A)	30 + 30	30 + 30
Max.short-circuit current(A)	36 + 36	36 + 36
Battery Side		
Battery type	Lead-acid or Lithium-ion	
Battery voltage range(V)	40 ~ 60	
Maximum charging/discharge current(A)	250	290
Grid Side		
Rated output power(kW)	12	15
Max.output apparent power(kVA)	13.2	16.5
Max.input apparent power(kVA)	13.2	16.5
Max.charging power of battery(kW)	12	15
Rated AC voltage	220 / 380 , 230 / 400, 3 L / N / PE	
Rated AC frequency(Hz)	50/60	
Max.output current(A)	19.2	24
Power factor	-0.8 lagging ~ 0.8 leading	
Max.total harmonic distortion	< 3% (of nominal power)	
Back-up Side		
Rated output power(kW)	12	15
Max.output current(A)	19.2	24
UPS switching time(ms)	< 6	
Rated output voltage	220 / 380 , 230 / 400 , 3 L / N / PE	
Rated output frequency(Hz)	50/60	
Voltage harmonic distortion	< 3% (of nominal power)	
Efficiency		
Max.efficiency(%)	97.6%	
European efficiency(%)	96.5%	
Protection		
Integration	DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, AC Output Overvoltage Protection AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Arc Fault Circuit Interrupter, Power Network Monitoring, Island Protection Monitoring Earth Fault Detection, DC Input Switch	
Over voltage category	PV:II Main:III	
General Data		
Dimensions [W×H×Dmm]	422 × 658 × 254 (Excluding Connectors and Brackets)	
Weight(kg)	≤38.5	
Protection degree	IP65	
Topology	Transformerless	
Operating Temperature Range(°C)	-25 ~ +60(>45 derating)	
Relative Humidity(%)	5 ~ 95 (No condensation)	
Operating Altitude(m)	< 3000	
Cooling	Intelligent Redundant Fan Cooling	
Noise Level(dB)	≤ 55	
Display	LED+LCD	
Communication	RS485/CAN/WIFI / (4G, LAN Optional)	
Safety Certification	IEC 62109、IEC 61000	
Grid Connection Certification	EN 50549-1/10、IEC 61683、IEC 61727、IEC62116	